

# Academic Adaptability As Predictor Of Academic Achievement Among Form Three Students In Kitui County, Kenya

Priscah M.Muthui

Dr. Peter Mwaura

Dr Josphine Ngina Mutua

Department of Educational Psychological, Kenyatta University,  
Nairobi, Kenya

*Abstract: Studies that have been done on academic adaptability have demonstrated there is a significant relationship between academic adaptability and academic achievement. The poor performance that has been witnessed among most of the students in sub-county secondary schools in Kitui county could be associated to the students' academic adaptability among other factors. Specifically, in Kenya little has been done on the academic adaptability as a predictor of academic achievement. This study specifically explored academic adaptability as the predictor of academic achievement. The study was guided Individual Adaptability Theory. The study used Explanatory Sequential Mixed Method research design. The participants were 427, that is 218 boys and 209 girls from ten public sub-county secondary schools in the year 2023. Purposive, stratified, simple random sampling and proportionate sampling was used to select the schools and the participants. Academic adaptability scale was used to collect quantitative data while interview schedule was used to collect qualitative data. Finally, pro forma summary was used to collect academic achievement data. A pilot study involving 30 students was conducted to establish the reliability and validity of the research instruments. Both descriptive and inferential statistics were used to analyze the data. Quantitative data was analyzed using Pearson's Product Moment Correlation Coefficient and multiple regression while the qualitative data was analyzed thematically. The findings revealed that there was a significant and positive relationship between academic adaptability and academic achievement ( $r=.00, p<.05$ ). Since the students' academic adaptability was found to have a positive and a significant relationship with their academic achievement, the researcher recommended that it may be of use to conduct the same study on primary school pupils and even students at the tertiary level.*

## I. BACKGROUND TO THE STUDY

In many countries around the world, success in education is mostly measured by the good grades obtained by the students. Therefore, these students are always under pressure from the parents and teachers to attain the good grades. In addition, parents, teachers and the education stakeholders have always believed that, going to the university and acquiring a formal employment is the only way one can secure a bright future. Now, owing to the fact that academic achievement is the main pathway to formal employment, efforts have been made to improve its quality around the world. However, low quality academic achievement among students in developing

countries and also in developed countries is of great concern. It has been reported that less than 10% of the countries in the world have acquired enough learning resources, the required technology and achievement in education (United Nations Educational, Scientific and Cultural Organization, UNESCO, 2021). Even though it was reported that this challenge cuts across developing and developed countries, it was found that this problem is more pronounced in developing countries.

Alhadabi and Karpinski (2019), reported that most of the students in Midwestern University in USA performed poorly in their examinations. The researchers argued that academic performance of the students was of great concern to the university academic staff. They reported that some of the

reasons that lead to the poor performance was lack of self-efficacy, grit and academic goal orientation. Socio-demographic factors, health behaviors and mental health were also correlated to the poor performance of the students.

In Indonesia, the same challenge is experienced; Mauliya et al. (2020) observed that below average performance in academics in Indonesia was attributed to failure of the stakeholders to motivate both parents and the students. The same challenge has also been reported in Iran where TIMSS Workshop Report (2015) indicated that the achievement of learners in TIMSS was below the average score of 500 points. Majority of the learners who were involved in the assessment scored below average in mathematics and science. A study by Abdullah and Bhatti (2018) also showed that poor academic achievement in Pakistan was an issue of great concern. Majority of the students performed below average in academics.

In China, Wu and Xin, (2019) indicated that most of the college students in Xi'an were performing dismally in academics. The researchers argued that academic achievement of the students was an issue of great concern. The researchers investigated the reasons why students performed poorly and reported that lack of self-efficacy and proper planning to succeed was one of the reasons. Poor parental care, poor family relationship, financial challenges, poor teaching and poor management among the school administrators also contributed to this problem.

In South Africa, Anand et al. (2021) revealed that the quality of students' grades in most schools failed to meet the minimum threshold of being classified as achievers as their scores were below standard. This challenge was attributed to inequality in access to learning opportunities. The researchers reported that a significant number of students did not have access to equal learning opportunities which contributed to poor academic achievement in the region. A study in Ethiopia by Seyoum et al. (2019) associated the high prevalence of poor academic achievement to high poverty levels. The researchers raised concern on the quality of education in Ethiopia owing to the high prevalence of low-quality academic achievement.

In Uganda, a study by Hassan et al. (2020) reported that a significant number of secondary school students in Uganda perform below standard in academic achievement. This challenge was attributed to absenteeism, high poverty levels, students' inability to understand the language used to teach, lack of adequate support from the school management and teacher's attitude. Similarly, Adams et al. (2018) reported that there was a huge discrepancy in the school learning assets, teaching aids and achievement in Ghana, Kenya and South Africa with Kenya having the largest number of teaching assets followed by South Africa. The Ghanaian students were reported to perform poorly in academics because of their limited access to learning resources.

The prevalence of registering low achievement scores among secondary school students in Kenya is also high. Sang (2018) in his study in Kipkelion East Sub-County, reported that there has been a decrease in the mean score obtained by secondary school students in examinations. According to the study, in 2014 the mean score for the sub-county schools was 5.52 but in 2016 the mean score obtained dropped to 4.13.

Onderi et al. (2019) also observed consistency of dismal performance in KCSE examinations and the situation persisted without changing year in year out.

In Kitui County, majority of secondary school students attain below average grades in KCSE examinations with sub-county secondary schools being the worst affected. Compared to the other neighboring counties, for example, Embu, Machakos and Makueni, Kitui county has the highest number of students who scored D+ and below in the sub-county secondary schools in in KCSE in the period running from 2017 to 2021, (Eastern Regional Education Office, 2022). Nationally, the percentages of the students who scored grade D+ and below from 2017 to 2021 were 63%, 49%, 53%, 51% and 53% respectively, (Ministry of Education, Kenya). In Kitui county, the percentages of those who scored grade D+ and below during the same period were 68%, 52%, 61%, 55% and 56% respectively, (Kitui County Education Office, 2021). Researchers have attempted to establish the factors associated with this poor academic achievement. Some researchers have associated this problem with student's psychological variables such as academic motivation, self-esteem, locus of control and self-efficacy, personal traits, teacher factors and school factors (Masud et al., 2019; Makondo 2020; Niromand et al., 2020; Olfumi et al., 2018).

Based on the knowledge obtained from the previous researches, this study came up with academic adaptability as a correlate of academic achievement. Although the existing studies have however studied this variable, there is a dearth of information of how the construct predicts academic achievement among secondary students. As a result, the current study looked at how academic adaptability predicts academic achievement among form three students in sub-county secondary schools in Kitui County.

Academic adaptability is the ability to adjust one's thought patterns, affect, and the way one behaves while responding to changing, new, and uncertain circumstances (Martin *et al.*, 2012). It entails cognitive, behavioral and affective domains. Cognitive adaptability entails how quickly one adjusts his or her thoughts in understanding his or her environment; behavioral adaptability is one's ability to adjust the way one acts in order to fit in a certain environment while affective adaptability refers to individual's ability to adjust their interactions and improving one's relationship with others (Holliman *et al.*, 2018). Ployart and Bliese, (2006) theory on Individual Adaptability explains how learners adjust to their learning environment. This helps the learners in interacting with other learners and the changing situations in a learning environment hence becoming academically adapted which enhances their academic performance.

Zhang et al., (2021) revealed existence of a positive correlation when academic adaptability and academic achievement were studied among learners in China. The researchers further reported an inverse relationship after correlating adaptability, academic achievement and undesirable academic emotion. With academic emotion as the mediator, it was also established that adaptability could be used to predict academic achievement. Collie et al. (2019) reported that the scores of the learners who were actively adapted in academics were higher.

In Kenya, Ochieng et al., (2019) identified academic adaptability to be a positive and a significant correlate of Chemistry performance. This implies that adaptability skills are important for better academic achievement. Additionally, Addero (2020) related students' adaptability to the school environment and academic performance and found out that a connection exists between the two variables. The researcher confirmed that the students' adaptability to school environment could be used to predict academic performance.

Ngondi et. al. (2020) also established a positive and significant relationship between students' adaptability skills and academic achievement. From the literature reviewed, little has been done to determine how academic adaptability predicts academic achievement particularly among students in the Kenyan context, hence the need for the proposed study.

#### PURPOSE OF THE STUDY

The purpose of this study was to investigate the extent to which academic achievement is predicted by academic adaptability.

#### OBJECTIVES AND HYPOTHESIS OF THE STUDY

The study sought to establish how academic adaptability relates to academic achievement. The following hypothesis guided the study.

$H_{a1}$ : There is a significant relationship between the students' academic adaptability and their academic achievement.

#### II. THEORETICAL FRAMEWORK

This study was anchored on individual adaptability theory by Ployhart and Bliese in 2006. The main tenet of this theory is that adaptability is the measure of individual's ability to adjust in order to adapt to a new environment (Ployhart & Bliese, 2006). It allows an individual to make appropriate responses to changed or changing situations; the ability to modify or adjust one's behavior in meeting different circumstances or different people. Therefore, adaption is a skill that enables one to adjust to changing circumstances. People can be cognitively, affectively and behaviorally adapted. Research has found out that adaptability is a key determinant of whether an individual successfully responds to changes in their environment or not (Holliman et al.,2018). Individual adaptability theory explains the principles of behavior, environment and coping mechanisms. According to Ployhart and Bliese (2006), a person has to change his /her behavior through developing a certain positive mechanism in order to adjust to an environment or to changes in their current environment for them to achieve their goals. The theory also explains that, individuals adapt to an environment in three different ways. When an individual adjusts to the environment by effectively and appropriately changing their decision policies to achieve their goals, this is what is referred to as cognitive adaptability. The second domain of adaptability according to the theory is behavioral adaptability which is explained as the changes in behavior that a person uses to

adjust in an environment. The third domain is the affective adaptability which is explained as one's ability to control their emotions as they respond to a new challenge in an environment in order to achieve one's goals. In this study, this theory was used to explain the interrelationships between academic adaptability and academic achievement. To achieve their learning goals, learners resort in adjusting their thinking, feelings and also the way they behave.

#### III. REVIEW OF THE RELATED LITERATURE

A few studies were found to have directly investigated the relationship between academic adaptability and secondary school students' academic achievement. Burns et al. (2019) studied how adaptability affects learners' performance among post graduate students in United Kingdom. The sample were mostly female (92 percent), whose age varied from 21 to 50 years ( $M=34.33$ ;  $SD=9.68$ ). The selection criterion for the sample size was random selection from any learners' stratum. The study used the cross-sectional research design. All the students on the psychology conversion area of study were deemed qualified and were invited to take part in the research. Adaptability and academic achievement were found to have a significant association. The study was conducted among college students in UK and college adaptability may vary when the same study is conducted in a Kenyan setting. This population and setting gap calls for a study to fill it.

Holliman, et al. (2018), correlated academic adaptability and academic achievement among first year undergraduate students in Australia. The researchers used 400 participants (150 females and 250 males) aged between 20 to 26 years. This was a cross sectional study and the findings indicated that academic adaptability was positively related to academic achievement. Cross sectional studies suffer flaws arising from existence of conflict of interest. The current study used explanatory sequential mixed method design to bridge the methodological gap and yield results that may be used for comparison purposes.

Similarly, Birzina et al. (2019) conducted a study that aimed at exploring how adaptability of learners pursuing health related courses related to their performance in examinations. The study involved 1977 students and data collection was done using questionnaires. The percentage of successfully completed questionnaires was 79.08%. The study used cross-sectional research design. Descriptive statistics and factor analysis were done using SPSS software. Findings indicated that increase in academic adaptability resulted to a corresponding proportionate increase in academic performance. This study was done amongst university students in China which necessitated a need to conduct a similar study amongst secondary school learners in Kenya to bridge the population gap.

A study done by Li et al. (2020) examined the relationship between career adaptability and academic performance. The researcher drew 149 (70 males, 79 females) participants from a Chinese high school aged between 12 and 14 years. Survey method was used for data collection and the findings showed that career adaptability influences academic performance among these high school learners. The study

further explained that learners who were found to have high levels of career adaptability were found to be better performers. Survey method is characterized by inflexibility where there is no room for the questionnaire modification throughout the data collection process since it will be considered as a new data. The current study used explanatory sequential mixed method which allows for the modification of the questionnaire. Secondly, the sample of this study was drawn from a developed country while the current study draws respondents from a developing country to compare the results.

In Australia, Holliman et al. (2018) looked at the relationship between the university students' adaptability and their mid-course academic achievement among university students. The sample size was 250 university students (105 females and 145 males). The participants aged between 16 years and 20 years. The study used a cross-sectional research design and the findings showed that adaptability significantly predicted the students' mid-course academic achievement. This study used a cross-sectional research design whose findings can be flawed if there is a conflict of interest. The current study used explanatory sequential mixed method which uses both quantitative and qualitative analyses for in depth understanding.

Another study by Cai et al. (2020) studied the relationship between the children's school adaptation and academic achievement among Korean children. The sample size consisted of 695 children aged 10 years where 400 were boys while 295 were girls. The study used interviews for data collection and descriptive method was used to analyze the data. It was found out that there was a positive and a significant relationship between the children's adaptability and their academic achievement. The sample of this study was children aged 10 years which may limit the generalization of these findings. Secondly, Interview was used to collect data and it is vulnerable to biasness while the current study used questionnaires to collect the data.

Al Akashee et al. (2020) did a study that aimed at identifying whether academic adaptation and academic performance were correlates. The variables were studied amongst university students of Sharjah in United Arab Emirates. The sample size used was 49 participants (29 males and 20 females), first year undergraduates and 152 third year undergraduates. The study used correlational research design. The participants completed the students' adaptation to college questionnaire. The results showed that in both groups the participants who scored higher on the adaptability scale were better performers. This study used correlational research design while the current study used explanatory sequential mixed method research design which expands on the quantitative results in order to compare the results.

Ochieng et al. (2019), did an investigation aimed at establishing whether a correlation exist between adaptability and students' achievement in chemistry subject. The study was done in Rachuonyo South Sub-county. The target population was 4400 form three students of 2019 class. The sample size also included chemistry as well as guidance and counseling teachers. The study used correlational research design and the theory of planned behavior was used. Correlations were done and adaptability scores were found to relate positively to achieved chemistry scores. This study used the theory of

planned behavior which does not account for other variables that factor into behavior intention such as past experience to explain the interrelationships among variables while the current study used a different theory proposed by Ployhart and Bliese (2006) to explain the interrelationship and bridge the theoretical gap.

#### IV. METHODOLOGY

This study used explanatory sequential mixed method research design. According to (Clark, 2011) and (Creswell, 2018), this design involves first collecting quantitative data and then collecting qualitative data to help explain or elaborate on the quantitative results. The purpose of this embedded design is to collect quantitative and qualitative data sequentially, and to have one form of data playing a supportive role to the other form of data. The researcher first collected and analyzed the quantitative data and then qualitative data was collected in the second phase of the study. Thus, qualitative data was used in the subsequent interpretation and clarification of the results from the quantitative data analysis. According to Creswell, (2018), this research design, helps the researcher to seek elaboration and clarification of the results. In this study therefore, this design helped the researcher to gain a deeper understanding of the relationship between academic adaptability and academic achievement.

#### LOCALE OF THE STUDY

This study was done among ten sub-county secondary schools in Kitui county. The KCSE performance in Kitui county has been consistently low Compared to the other neighboring counties, for example, Embu, Machakos and Makueni. Kitui county has the highest number of students who scored D+ and below in the sub-county secondary schools in in KCSE in the period running from 2017 to 2021. This necessitated the choice of the location of this study so as to establish whether academic adaptability which influences academic achievement is evident in the learners in this county. The target population for this study was 10080 (5130 boys and 4950 girls) form three sub-county secondary school students.

#### SAMPLING TECHNIQUES

The study was conducted in Kitui County which was selected using purposive sampling technique. The county was purposively selected because cases of below average performance among sub-county secondary school students have been on the rise in the county (Munyithya, 2019). The schools to be involved in the study were selected using purposive sampling technique. Simple random sampling technique was used to select one stream in schools with more than one stream. Stratified random sampling was used to categorize the schools into boys boarding, girls boarding, coeducational boarding and coeducational day secondary schools. Form three students in the county were selected using purposive sampling because they are assumed to have shown a registered level of academic adaptability, academic

psychological capital and academic engagement. The students to be involved in the study from each school category were selected using proportionate sampling technique.

## RESEARCH INSTRUMENTS

A questionnaire, interview schedule and a pro forma summary of students' academic results were used to collect data.

### QUESTIONNAIRE

The first tool was a questionnaire which was used to collect data and it contained two sections. Section A contained instructions and the respondents' background information which consists of the respondents' gender, age, type of the school and the school category. Section B is the adapted scale on the academic adaptability. The full description of the scale is given below.

#### Academic Adaptability Scale

The researcher adapted adaptability scale developed by Martin et al. (2013) to measure academic adaptability of the students. The scale developer's established that reliability coefficient was .87 but the researcher carried out a pilot study to establish its reliability among secondary school students in Kenya. The scale consists of 9 items that measure adaptability on a five point Likert scale ranging from *Strongly Disagree* to *Strongly Agree*. It consists of three sub-scales namely; cognitive, behavioral and affective. Cognitive adaptability was measured by items 1-3, behavioral adaptability was measured by items 4-6 while affective adaptability was measured by items 7-9. Scoring was done by adding the scores for each item. The scores ranged from 9 to 45 on the global scale and 9-15 for the sub -scales. A score between 9 and 27 implied low level of adaptability, 28 and 35 implied moderate level of academic adaptability while a score between 36 and 45 signified high level of academic adaptability. The research instrument was free for use and the source has been referenced according to the APA 7<sup>th</sup> edition.

#### Interview Schedule

The researcher used a semi structured interview schedule to collect qualitative data on the students' academic adaptability. The qualitative data helped the researcher in understanding of the better meaning of the quantitative data obtained in the first phase. The interviews were conducted on 40 participants where, the first 20 participants were the ones who rated themselves highly on academic adaptability. The other group of 20 participants were the ones who rated themselves lowly on academic adaptability scale. The interview schedule was divided into two parts; section A and B. Section A was used to collect background information of the students which included school code, gender, age and school category while Section B was used to collect data on Academic adaptability.

### Pro Forma Summary of Students' Examination

To measure the students' academic achievement, the researcher examined the achievement records of the form three students in the sub-county secondary schools. The total marks for the form three end of term one exams and the term two opener exams year 2023 were obtained. The average score for every student was tabulated on the two examinations. The mean scores were transformed into Z scores and then into T-scores so as to make them comparable among the students in different schools.

## DATA COLLECTION

The researcher obtained research authorization letter from Kenyatta University's Graduate school. The authorization letter was used to apply for a research permit from the National Commission for Science, Technology and Innovation (NACOSTI). Once the research permit was obtained, the researcher reported to the Kitui County Director of Education and county commissioner for authorization to carry out the study in the county. The researcher assembled all the requirements for data collection. The research instruments were printed and counter checked to ensure all the questions have been printed. The schools to be involved in the study were identified and then appointments were booked with the principals for data collection.

## DATA ANALYSIS

This study collected quantitative and qualitative data. The Statistical Program for Social Science program (SPSS) version 25.0 was used to analyze the quantitative data. Procedures for descriptive and inferential statistics were used. Null hypotheses were tested using inferential statistics while mean and standard deviation were used to describe the characteristics of the participants. The degree of relationship that exists between academic adaptability and academic achievement were measured using Pearson's product moment correlation (r). Multiple regression was used to test the predictive weight of the domains of academic adaptability, on academic achievement.

## V. FINDINGS

### GENERAL INFORMATION

In this section, general information on the questionnaire's return rate is presented. The data is presented in Table 1.

Type of school	Sample size	Students		Return rate	
		Boys	Girls	boys	girls
Boys Boarding	63(14.8)	-	-	60 (95)	-
Girls Boarding	-	50(11.7)	-	-	48 (96)

Coeducatio nal	2	48(11.2)	45(10.5)	47(98)	42(93)
Boarding Coeducatio nal		107(25)	114(26.8)	105(98)	113(99)
Day S. 3					
Sub-total		218(51)	209(49)	212(97)	203(97)
Total	10	427(100)		415 (97)	

Note. N=415, ( ) percentage

Table 1: Return Rate

From Table 1, it is observed that the sampled schools were 10 public sub-county secondary schools and the number of the respondents who participated in the study were 427 (218 boys, 209 girls). However, from the same Table 1, it is observed that the return rate for the questionnaire was 97%, which represents a total of 415 questionnaires (212 girls, 203 boys). All the 427 questionnaires were administered and collected but during data coding and cleaning, it was discovered that 8 questionnaires were not fully filled up and so they were discarded. The statistics in the same table show that majority of the participants were drawn from the coeducational day schools (51.8) while the least figure was drawn from the girls boarding (11.7). The second largest number of participants was drawn from the Coeducational boarding (21.7). Male respondents in this study were the majority representing 51% of the total participants while the female respondents represented 49% of the total participants. According to a criterion by Creswell, (2014), a return rate of 70% and above is excellent for a survey.

#### DEMOGRAPHIC ANALYSIS

In this section, the researcher looked at the descriptions of the participants age, cross tabulations of their age and gender, age and the school type and lastly gender and school type.

##### Age of the Participants

Note. N=415, ( ) =percent

Table 2: Description of the Participants Age in Years

From the above Table 2, participants who were aged between 14-18 were 382 and formed the largest percentage of (92) while those that were aged between 19-25 were 32 and formed a percentage of (7.8). Only one participant was aged 26 years and above and formed a percentage of (.2)

#### PARTICIPANTS AGE AND GENDER

A cross tabulation of the participants age and gender was done and the results were presented in Table 3.

	Age	Gender		Total
		Boys	Girls	
	14-18	188 (45)	194(46.7)	382(92)
	19-25	23 (6)	9 (2.2)	32(7.8)
	26 and above	1 (0.2)	-	1(0.2)
	Total	212(51.2)	203(48.9)	415(100)

Note. N=415, ( ) percentage.

Table 3: Descriptions of the Participants Age and Gender

From Table 3, it is observed that female respondents aged between 14-18 were 194 and formed the majority with (46.7%) while the male participants in the same age bracket formed less than half of the total participants (45%). Male participants whose age ranged between 19-25 formed less than a quarter of the total participants (6%) while their female counterparts in the same age bracket were the least (2%). There was only one male participant who was aged 26 and above.

#### PARTICIPANTS AGE AND SCHOOL CATEGORY

The students' age and school category was cross-tabulated and the results were presented in Table 4.

	Age	Type of school				Total
		BB	G B	CB	CDS	
	14-18	51(12.3)	44(10.6)	82(19.8)	205(49.4)	382(92.1)
	19-25	9(2.2)	4(0.96)	6(1.5)	13(3.1)	32(7.7)
	26 & A	0	0	1(0.2)	0	1(0.2)
	Total	60(14.5)	48(11.56)	89(21.5)	218(52.5)	415(100)

Note. N=415, BB=boys boarding, GB=girls boarding, CB=coeducational boarding, CDS=coeducational day school, ( )=percentage.

Table 4: Descriptions of Participants Age and School Category

As given in Table 4, majority of the participants' (49.4%) aged between 14-18 were found in coeducational day schools. In the same age bracket, those who were in coeducational boarding schools were (19.8) and the least percentage of (10.6) in the same age bracket were enrolled in girls boarding. On the other hand, the largest percentage of the participants aged between 19-25 was found in coeducational day school (3.1) followed by those in co-educational boarding (1.5) while the least percentage (0.96) was found in the girls boarding schools. Participants aged 26 and above had the least percentage (0.2) and was only found in coeducational boarding.

#### PARTICIPANTS' GENDER AND SCHOOL CATEGORY

The students' gender and school category was cross-tabulated and the results were presented in Table 5 below.

	Gender	Type of school				Total
		BB	G B	CB	CDS	
	Male	60(14.5)	0	47(11.3)	105(25.3)	212(51.1)
	Female	0	48(11.6)	42(10.1)	113(27.2)	203(48.9)
	Total	60(14.5)	48(11.6)	89(21.4)	218(53)	415(100)

Note: N=415, BB=boys boarding, GB=girls boarding, CB=coeducational boarding, CDS=coeducational day secondary, ( ) =percentage.

Table 5: Descriptions of Participants Gender and School Category

As shown in the Table 5, there were more girls (27.2) than boys (25.3) in the coeducational day secondary school. On the other hand, there were more boys (11.3) than girls (10.1) in the coeducational boarding schools. In the boys

boarding, there were more participants (14.5) than in the girls (11.6) boarding schools.

**RESULTS AS PER THE STUDY OBJECTIVE**

The findings of this study were presented according to the stated objective. The relevant descriptive statistics for the objective was given followed by the specific inferential statistics used to test the null hypothesis. Finally, a discussion of the findings was given.

*DESCRIPTIVE STATISTICS OF ACADEMIC ADAPTABILITY*

The participants' academic adaptability scores were analyzed to get the range, mean, standard deviation, skewness and kurtosis. The results were presented in Table 6

N	Range	Min	Max	Mean	SD	Sk	Kur
415	27.00	9.00	36.00	23.83	5.3	-.125	-.133

Note. N=415, MIN=Minimum, MAX=maximum, SD=Standard deviation, SK=Skewness, Kur=Kurtosis

Table 6: Description of Academic Adaptability Scores

As indicated in Table 6, the minimum and the maximum scores were 9 and 36 respectively giving a range of 27. The mean score was 23.8 (SD=5.3) meaning that most of the learners had low academic adaptability. The minimum and maximum scores were 9 and 45 respectively. The scores were negatively skewed with the coefficient of skewness as -.125 meaning that most of the participants had rated themselves highly on the academic adaptability scale. The Kurtosis was -.133 which showed that the distribution was platykurtic with more scores at the extremes and very few scores concentrating around the mean. Further analysis was done to determine the descriptive statistics of academic adaptability by gender in order to compare the mean of the boys and the girls in this study and the results were as presented in Table 7.

Gender	N	Min	Max	Range	Mean	SD	Kur	Sk
Boys	212	9.00	36.00	27.00	23.39	5.18	-.27	-.10
Girls	203	9.00	36.00	27.00	24.28	5.42	.03	-.18
Total	415	9.00	36.00	27.00	23.83	5.31	-.133	-.13

Note. N=415, Min=Minimum, Max=Maximum, SD=Standard Deviation, Kur=Kurtosis, SK=Skewness.

Table 7: Descriptive Statistics of Academic Adaptability by Gender

As indicated in Table 7, the range for both participants was 27 with the minimum and the maximum scores being 9 and 36 respectively. On the other hand, the girls' had the highest mean 24.28(SD=5.42) while boys had the least mean 23.39 (SD=5.18). As observed from the same table 4.7, the boys' kurtosis was -.27 implying that the distribution of their scores was platykurtic meaning that more scores were spread out. The boys were also found to have a negative skewness of -.0.10 meaning that majority of the boys rated themselves highly on the academic adaptability scale. On the other hand, the girls Kurtosis was found to be .03 which implied that the distribution of their scores was leptokurtic meaning that more scores were concentrated around the mean. Finally, the girls were also found to have a negative skewness of -.18, which

implied that more girls, just like the boys rated themselves highly on the academic adaptability scale.

To categorize, the participants' academic adaptability levels into low, moderate and high their academic adaptability scores were used. The findings were presented in Table 8.

	Frequency	Percent
low	315	75.9
Moderate	93	22.4
high	7	1.7
Total	415	100.0

Note. N=415

Table 8: Descriptions of the Participants Levels of Academic Adaptability

Most of the participants were rated as having a low level of academic adaptability 75.9% as observed from Table 8 while less than half of the total participants were rated as having moderate level of academic adaptability 22.4%. Only 1.7% participants were rated as having high level of academic adaptability. Since academic adaptability has three subscales; cognitive adaptability, affective adaptability and behavioral adaptability, the researcher focused on their analysis. Therefore, further analysis of the participants' academic adaptability sub-scales was done to determine the range, mean, standard deviation, skewness and the kurtosis of each of the sub-scale and the findings were presented in Table 9.

	N	Range	Min	Max	Mean	SD	SK	Kur
BA	415	12.00	3.00	15.00	11.16	2.13	-.37	-.06
AA	415	12.00	3.00	15.00	10.74	2.60	-.58	-.03
CA	415	12.00	3.00	15.00	10.81	2.45	-.57	-.04
Valid N (listwise)	415							

Note. N=415. Min=Minimum, Max=Maximum, SD=standard deviation, SK=skewness, KUR=kurtosis, BA=behavioral adaptability, AA=affective adaptability, CA=cognitive adaptability.

Table 9: Descriptive Statistics of the Academic Adaptability Subscales

As shown in Table 9, the highest mean was obtained from behavioral adaptability domain 11.16 (SD=2.13) followed by cognitive adaptability 10.81(SD=2.45) while the least mean was obtained on the affective adaptability domain 10.74 (SD=2.60). The distribution of the scores for all the domains were negatively skewed, meaning that all the participants' rated themselves highly on the three sub-scales. Kurtosis values were less than 3 implying that there was a platykurtic distribution which means that the scores were more widely spread out from the mean. Further analysis was done on the participants' academic achievement. Firstly, the participants' end of term one examination and the term two opener examination 2023 were obtained and the average calculated. The mean scores obtained were transformed into Z-scores and then into T-scores to make them comparable among the

students in different schools. The findings were presented in Table 10.

	N	Range	Min	Max	Mean	SD	Sk	Kur
academic achievement	415	54	25	79	50	10	.07	.2

Note. N=415, Max=Maximum, Min=Minimum, S=Standard deviation, SK=Skewness, Kur=Kurtosis

Table 10: Participants' Descriptive Statistics of Academic Achievement

As it is observed from Table 10, the range was 54 meaning that the maximum and the minimum T-scores were 79 and 25 respectively. The mean for the students' academic achievement was found to be 50 while the standard deviation was 10 meaning that the distribution of the participants' academic achievement scores had been transformed into T-scores. The kurtosis for the academic achievement T-scores was .2 implying that the distribution was leptokurtic meaning that more scores were concentrated around the mean. As a result, the researcher sought to determine the levels of academic achievement of the participants. The results of the analysis were presented in Table 11

	Frequency	Percent
Low	29	7.0
Moderate	370	89.2
High	16	3.9
Total	415	100.

N=415.

Table 11: Levels of Academic Achievement

As shown from Table 11, more than three quarters of the total participants were classified as being moderate in their academic achievement (89.2). The participants who were found to have low academic achievement were (7.0) while those that were found to have high academic achievement were the least (3.9). The researcher sought to determine the academic achievement levels across different levels of academic adaptability. The findings were presented in Table 12

	Levels of Academic Achievement			
	Low	Moderate	High	Total
Levels of Academic	Low 18(4.3)	79(19)	9(2.2)	106(25.5)
Adaptability	Moderate 0	252(60.7)	0	252(60.7)
	High 11(2.7)	39 (9.5)	7 (1.7)	57(13.8)
	Total 29(7)	370(89.2)	16(3.9)	415(100)

Note. N=415, ( )=percent

Table 12: Academic Adptability Levels Across Levels of Academic Achievement

As shown in Table 12, (4.3) of the total participants were found to have low levels of academic achievement and academic adaptability. It can also be observed that (19) of the total participants were found to have moderate levels of

academic achievement and low levels of academic adaptability. Lastly, (2.2) of the total participants were found to have high levels of academic achievement and low levels of academic adaptability. On the other hand, (60.7) of the total participants were found to have moderate levels of both academic achievement and academic adaptability while (1.7) of the total participants were found to have high levels of both academic adaptability and academic achievement. From the same table 12, it is also shown that (9.5) of the total participants were found to have high levels of academic adaptability and moderate levels of academic achievement. According to this analysis, more than three quarters of the total participants who were found to have low and moderate levels of academic achievement were also found to have low and moderate levels of academic adaptability hence explaining their low academic achievement. This finding may be used to explain the problem of low academic achievement in the sub-county secondary schools in Kitui county. The researcher went further and sought to determine the academic achievement means across different levels of academic adaptability. The findings were presented in Table 13.

	N	Min	Max	Mean	SD
LAA					
Low	315	24.65	75.61	37.34	18.16
Moderate	93	27.57	68.33	47.24	7.95
High	7	30.48	78.52	60.30	8.19

Note. N=415, MIN=minimum, MAX=maximum, SD=standard deviation, LAA= level of academic adaptability.

Table 13: Levels of Academic Adaptability across Academic Achievement

As observed from Table 13, participants who were found to have high levels of academic adaptability were found to have the highest mean 60.30 (SD=8.19). Those who were rated as having moderate levels of academic adaptability followed with a mean of 47.24 (SD=7.95) while those who were rated as having low level of academic adaptability had the least mean of 37.34 (SD=18.16). This finding can be used to explain the problem of low academic achievement in the sub-county secondary schools in Kitui county. More than three quarters of the total participants who were found to have low and moderate levels of academic achievement were also found to have low and moderate levels of academic adaptability hence explaining their low academic achievement.

## HYPOTHESIS TESTING

In order for the researcher to determine how academic adaptability, relates to academic achievement, the first null hypothesis was stated as follows:

H<sub>01</sub>: There is no significant relationship between the students' academic adaptability and Academic achievement.

To test this hypothesis, the data was subjected to a bivariate correlation analysis using the Pearson's product moment correlation co-efficient. The results are presented in Table 14.



Correlations		Academic Achievement
	Pearson Correlation	1
Academic Adaptability	N	415
	Pearson Correlation	.56**
	Sig. (2-tailed)	.00
	N	415

Note. N=415

\*\* Correlation is significant at the 0.05 level (2-tailed).

Table 14: Correlation between Academic Adaptability and Academic Achievement

As observed in Table 14 above, there was a significant and a positive relationship between academic adaptability scores and academic achievement scores. The obtained Pearson  $r$  value was  $r(415) = .56, p < .05$ . As a result, the null hypothesis was therefore rejected meaning that there is a significant relationship between the students' academic adaptability and academic achievement. It is also observed that the relationship between the students' academic adaptability and academic engagement is positive and moderate. These findings prompted further analysis to determine whether there existed a correlation between the three sub-scales of academic adaptability and academic achievement and which sub-scale had a higher correlation with academic achievement. As a result, the cognitive, behavioral and affective sub-scale scores and academic achievement scores were subjected to a bivariate correlation analysis using the Pearson's product moment correlation coefficient. The following findings were obtained and presented in Table 15.

		Academic achievement
Cognitive Adaptability	Pearson Correlation	.51**
	Sig. (2-tailed)	.00
Affective adaptability	Pearson Correlation	.41**
	Sig. (2-tailed)	.00
Behavioral Adaptability	Pearson Correlation	.66**
	Sig. (2-tailed)	.00

Note. N = 415.

Table 15: Correlation between Academic Adaptability Sub-Scales and Academic Achievement

As shown in Table 15, there is a significant relationship between all the sub-scales of academic adaptability and academic achievement. The correlation between cognitive adaptability, affective adaptability and academic achievement were found to be moderate while the correlation between behavioral adaptability and academic achievement was found to be strong. The highest correlation was found between the sub-scale of behavioral adaptability and academic achievement  $r(415) = 0.66, p < 0.05$ . The correlation between cognitive adaptability and academic achievement was the second with a correlation of  $r(415) = .51, p < 0.05$  while the least correlation was found between affective adaptability and

academic achievement  $r(415) = .41, p < 0.05$ . These findings implied that participants who were behaviorally adapted were better performers in their academic achievement followed by those participants who were cognitively adapted. On the other hand, the findings also implied that, those participants who were affectively adapted performed lowly compared to their counter parts. The researcher went further to establish the coefficient of determination of academic adaptability that explained the total variance in students' academic achievement. The data was subjected to a multiple regression and the findings were presented in Table 16.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.67a	.44	.44	7.49

a Predictors: (Constant), Affective Adaptability, Behavioral Adaptability, Cognitive Adaptability

Table 16: Adjusted R<sup>2</sup> of Academic Adaptability Sub-Scales on Academic Achievement

As shown in Table 16, R square value ( $R^2 = 0.44$ ) was moderate and it thus implied that 44% of the variation which occurred on the dependent variable, was caused by the sub-scales of academic adaptability. This finding meant that, 44% of the variations that occurred on the students' academic achievement was caused by the three domains of academic adaptability. Following this finding, further analysis was done to compare academic achievement means across the three domains/ sub-scales of academic adaptability. One way ANOVA was performed to compare the academic achievement means across the sub-scales of academic adaptability. The findings were presented in Table 17.

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	18351.92	3	6117.30	109.09	.00b
Residual	23048.09	411	56.08		
Total	41400.00	414			

a Dependent Variable: Standardized scores of academic achievement

b Predictors:(Constant), Affective adaptability, Behavioral Adaptability, Cognitive Adaptability

Table 17: ANOVA for Regression Analysis of Academic Adaptability Sub-Scales across Academic Achievement Means

From the above Table 17, there was a statistically significant mean difference between the sub-scales of academic adaptability as determined by the one way ANOVA ( $F(3, 411) = (109.09), P = .00$ ). These findings meant that there was a significant difference in the means between those that were found to have affective, cognitive and behavioral sub-scales of academic adaptability. The researcher went further to establish which of the three sub-scales of academic adaptability was a best predictor of academic achievement. The Beta Coefficients of the sub-scales of academic adaptability from the multiple regression analysis were presented in Table 18.

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
(Constant)	16.01	1.97	-	8.13	.00
Cognitive A	.19	.31	.05	.063	.53
Behavioral A	3.48	.30	.74	11.52	.00
Affective A	-.65	.25	-.17	2.63	.01

a. Dependent Variable: Standardized scores of academic achievement

b. Predictors: (Constant), Affective adaptability, Behavioral Adaptability, Cognitive Adaptability

Table 18: Beta Coefficients for the Sub-scales of Academic Adaptability

As per the data given in Table 18, the prediction equation was developed as follows;

$\hat{y} = 16.01 + 0.74 BA + 0.05 CA - 0.17 AA$ . From the above table, it is evident that behavioral adaptability had the highest predictive index ( $\beta = 0.74$ ) followed by cognitive adaptability ( $\beta = 0.05$ ) while the least predictive index was realized in affective adaptability ( $\beta = -0.17$ ).

Behavioral adaptability and cognitive adaptability had a positive predictive index of ( $\beta = 0.74$ ) and ( $\beta = 0.05$ ) respectively giving an indication that whenever there is an increase in behavioral or cognitive adaptability scores, it resulted into an increase in the academic achievement score.

On the other hand, the sub-scale of affective adaptability had a negative predictive index, implying that when there is an increase in affective adaptability score it leads to a decrease in academic achievement score and vice versa. The fact that behavioral adaptability sub-scale had the highest predictive index of ( $\beta = 0.74$ ), the implication was that it was the best predictor of academic achievement followed by cognitive adaptability sub-scale ( $\beta = 0.05$ ) while affective adaptability ( $\beta = -0.17$ ) was the least predictor. These findings were in line with the findings in Table 4.15, where behavioral adaptability was found to have the highest correlation ( $r = 0.66, p < 0.05$ ) followed by cognitive adaptability ( $r = 0.51, p < 0.05$ ) while the least correlation was found in affective adaptability ( $r = 0.41, p < 0.05$ ).

## VI. DISCUSSION OF THE FINDINGS

The study sought to establish whether academic adaptability predicted academic achievement. The study findings revealed that the students' academic adaptability was positively and significantly related to their academic achievement ( $r(415) = .00, p < .05$ ). The study findings also went further and revealed that behavioral adaptability was found to have the highest correlation with academic achievement ( $r(415) = .66, p < .05$ ). Cognitive adaptability was the second, and was found to have a positive and significant correlation with academic achievement ( $r(415) = .51, p < .05$ ) and the least correlation was found between affective adaptability and academic achievement ( $r(415) = .41, p < .05$ ). Both cognitive and affective adaptability had a positive and moderate relationship with academic achievement while behavioral adaptability was found to have a positive and

strong relationship with academic adaptability. The implication of this finding is that learners who scored highly on the behavioral sub-scale were better performers compared to their counterparts.

The findings obtained in this study were in line with the earlier findings by Burns et al. (2019) and Holliman et al. (2018) that there is a significant and a positive relationship between the students' academic adaptability and academic achievement. The two studies used cross-sectional research design while the current study used explanatory sequential research design. The samples used in Burns et al. (2019) and Holliman et al. (2018) were different from the samples used in this study. The previous studies used students who were at the university level while the current study used high school students. This therefore meant that irrespective of the level of schooling, academic adaptability was found to be significantly and positively correlated to academic achievement. On the other hand, the findings indicated that irrespective of the cross-cultural differences and different schooling levels, academic adaptability was significantly and positively correlated to academic achievement. These results implied that students who were found to have high levels of academic adaptability were likely to perform better than those who were found to have low or moderate levels of academic adaptability.

The findings of the current study were also in line with a previous study done by Li et al. (2020), who found out that there was a positive and a significant relationship between the students' career adaptability and academic achievement. The study was done on students from a Chinese high school and the Survey method was used. Although the study was done on high school students, China is a developed country compared to Kenya. Despite this disparity, the findings were similar to the findings of the current study and the results showed that career adaptability influences academic performance among these high school learners. The study went further and explained that those students who showed high levels of career adaptability performed better in their academics than those who were found to have low levels of career adaptability.

The findings of the current study also concurred with those of an earlier study by Holliman et al., (2019) which revealed that there existed a relationship between the university students' adaptability and their mid-course academic achievement. The sample used in the previous study differed from the sample used in the current study in their level of schooling and also in their location of study. However, the findings of the two studies indicated that there was a relationship between the student's adaptability and their academic achievement. These findings implied that despite the schooling level and the study location academic adaptability was found to be significantly related to academic achievement.

The current study's findings also agreed with those of another study done by Cai et al. (2020) which indicated that there was a relationship between children's adaptability and academic achievement. In these two studies the samples differed in terms of their age and also the methods of data collection differed. Therefore, these findings may imply that irrespective of the age of the participants, and the methods used in the data collection academic adaptability predicts academic achievement. Birzina et al. (2019) identified that

learners' adaptability is significantly related to their performance in exams. The sample size in the study was comprised of university students and in an urban setting while the current study drew the sample size from the high school students and in a rural setting. However, the two studies gave similar findings.

A research done by Al Akashee et al. (2020) on whether academic adaptability and academic performance were correlated supported the findings of the current study that the two variables were positively and significantly related. The study used a sample drawn from the university students and in an urban setting while the current study drew its sample from the high school students and in a rural setting. The study also reported that participants who scored highly on the academic adaptability scale were better performers. Despite the two samples in the two studies being different in terms of the location of the study, they both provided similar findings.

The findings of a previous study by Ochieng et al. (2019) agreed with the findings of the current study that students' academic adaptability was significantly and positively correlated to their academic achievement. The study by Ochieng et al. (2019), used a correlational research design and the theory of planned behavior while the current study used explanatory sequential research design and Individual Adaptability theory. However, despite the two studies using different study research design and different theories, the findings were similar.

In general, it can be concluded that irrespective of the different study samples, different study methodologies, different theories and different cultural contexts, it was found that the students' academic adaptability was significantly and positively correlated to their academic achievement.

Individual adaptability theory offers an explanation of the findings in this study on academic adaptability as a predictor of academic achievement. This theory explains that an individual can make appropriate responses to changed or changing situations in order to meet different circumstances (Ployhart & Bliese, 2006). According to this theory, adaptability is a key determinant of whether an individual successfully responds to changes in their environment or not (Holliman et al.2018). This theory can further be used to explain how learners can adjust to their learning environment and develop different ways of thinking in order to overcome learning difficulties. The theory can also be used to explain the interrelationships between academic adaptability and academic achievement.

## VII. CONCLUSION

The objective of this study was to find out the how academic adaptability relates to academic objective. An empirical evidence of a significant and positive relationship between the students, academic adaptability and their academic achievement was found. Further analysis revealed that there was a significant and a positive relationship between the sub-scales of academic adaptability and academic achievement. The highest correlation was found between academic adaptability and academic achievement  $r(415) = 0.66, p < 0.05$ , followed by cognitive adaptability and

academic achievement  $r(415) = .51, p < 0.05$ ) while the least correlation was found between affective adaptability and academic achievement  $r(415) = .41, p < 0.05$ ). This implied that participants who were found to be behaviorally adapted were better in their academic achievement followed by participants who were cognitively adapted. On the other hand, participants who were found to be affectively adapted were found to perform lowly compared to their counterparts.

## VIII. RECOMMENDATIONS

The following recommendations for policy and further research were made based on the findings of this study.

### POLICY RECOMMENDATIONS

- ✓ Now that in this study academic adaptability was found to have a positive and a significant influence on the students' academic achievement, teachers, parents and all the education stakeholders should work hand in hand in order to provide the right environment for fostering the development of this construct among the students.
- ✓ Capacity building for teachers should be introduced and enhanced in order to help them develop the necessary skills for helping the students to develop the right academic adaptability.
- ✓ Counselling and Adaptive skills programs should be introduced in secondary schools in order to help the learners realize the right levels of academic adaptability.
- ✓ Curriculum developers should come up with school programs which can help the learners in boosting their levels of this construct in order to excel in their academics.

### RECOMMENDATIONS FOR FURTHER

- ✓ This research was done on sub-county secondary schools and in Kitui county, considering that learning experiences differ from one school category to another and also from one county to another, there is need for a replication of the study involving students in other school categories and other counties.
- ✓ Since this study found out that academic adaptability has a positive and a significant relationship with the students' academic achievement, there is need to carry out a further study and establish the specific factors which influence the development of this construct.
- ✓ In this study, data analysis was based on correlation and regression analysis, which established the relationship between the variables without proving any causal link. As a result, further research may consider using experimental designs to test the actual causes of the study variable among the students.
- ✓ Based on the fact that the findings of this study were from secondary school students, further research should be done to give more insight on the relationship between academic adaptability and academic achievement of students at the primary school level and also at the tertiary level.

- ✓ This study investigated the relationship between academic adaptability and academic achievement. Further study should investigate the relationship between this construct and the specific subject areas like Chemistry, Physics and Mathematics.

#### REFERENCES

- [1] Abdullah, N. & Bhatti, N. (2018). Failure in quality of academic performance of students in public sector schools of Sheikhpura. *Journal of Education and Educational Development*, 5(2), 289-305.
- [2] Al Akashee, B., Bushra, A., Abdalla, F. & El-mneizel, A. F.(2020). Academic Adaptation and Achievement: A Comparative Study of Outstanding Students and Students under Academic Probation at the University of Sharjah. *International Journal for Research in Education*, 44(2). Available at: <https://scholarworks.uaeu.ac.ae/ijre/vol44/iss2/1>
- [3] Alhadabi, A. & Karpinski, A. C. (2019). Grit, self-efficacy, achievement orientation goals, And academic performance in University students. *International Journal of Adolescence and Youth*, 25(1), 519–535. <https://doi.org/10.1080/02673843.2019.1679202>
- [4] Anand, P., BehrmanBehrman, J. R., Dang, H.-A. H. & Jones, S. (2021). Decomposing Learning Inequalities in East Africa: How Much Does Sorting Matter? *The World Bank Economic Review*, 36(1), 2022, 219–243. <https://doi.org/10.1093/wber/lhab014>
- [5] Birzina, R., Cedere, D. & Petersone, L. (2019). Factors influencing the first year students' adaptation to natural science studies in higher education. *Journal of Baltic Science Education*, 18(3), 349-361. <https://doi.org/10.33225/jbse/19.18.349>
- [6] Burns, E.C., Martin, A.J. & Collie, R.J. (2019). Understanding the role of adaptability and personal best (PB) goals in students' academic outcomes: A social cognitive perspective. *British Journal of Educational Psychology Monograph Series*, 2(12), 111-13.
- [7] Cai, R., Wang, Q., Xu, J. & Zhou, L. (2020). Relationship between children's adaptation and academic performance among Korean children learning during the COVID-19 pandemic. *Sci Insight*, 34(1), 175–182. <https://doi.org/10.15354/si.20.ar011>.
- [8] Hassan, A., Bisaso, S. M., Ssekanyo, I. & Kantono, R. (2020). Academic performance in islamic university primary school: causes of poor performance and anticipated remedy. a study commissioned by the Executive Board of Islamic University in Uganda. *East African Journal of Education Studies*, 2(1), 105–114. <https://doi.org/10.37284/eajes.2.1.210>
- [9] Holliman, A., Martin, A. J. & Collie, R. (2018). Adaptability, engagement, and degree completion: a longitudinal investigation of university students. *Educational Psychology*, 38(6), 1-15. DOI 10.1080/01443410.2018.1426835.
- [10] Holliman, Andrew J., Sheriston, L., Martin, A. J., Collie, R. J. & Sayer, D. (2019).
- [11] Adaptability: does students' adjustment to university predict their mid-course academic achievement and satisfaction? *Journal of Further and Higher Education*, 43(10), 1444–1455.
- [12] Li, H.H.; Yu, X.; Mei, Y.F.; Liu, X.H.; Li, L. & Luo, N. (2020). The The Relationship between Career Adaptability and Academic Performance of Chinese High School Students *Front. Psychol.*, 12, 11.
- [13] Martin, A. J., Nejad, H., Colmar, S. & Liem, G. A. D. (2013). Adaptability: conceptual and empirical perspectives on responses to change, Novelty and Uncertainty. *Aust. J. Guid. Coun.* 22, 58–81. doi: 10.1017/jgc.2012.8
- [14] Mauliya, I., Relianisa, R. Z. & Rokhyati, U. (2020). Lack of Motivation Factors Creating Poor Academic Performance in the Context of Graduate English Department Students. *Journal of Linguistics and Language Teaching*, 6(2), 73-85. <https://doi.org/10.29300/ling.v6i2.3604>
- [15] Ngondi, R., Khasakhala, L. & Yugi, P. (2020). Relationship between Emotional Intelligence and Academic Performance among Secondary School Students in Athi-River Sub County, Kenya. *Journal of Education in Developing Economies* 1(1), 13-22.
- [16] Ochieng, M., Aloka, P. J. O. & Kevogo, N. (2019). Relationship between Adaptability and Chemistry Achievement among Students in Kenyan Secondary Schools. *International Journal of Applied Psychology*, 9(4), 99–103. <http://article.sapub.org/10.5923.j.ijap.20190904.01.html>
- [17] Seyoum, D., Tsegaye, R. & Tesfaye, A. (2019). Under nutrition as a predictor of poor academic performance; the case of Nekemte primary schools students, Western Ethiopia. *BMC Research Notes*, 12(1), 1-6. <https://doi.org/10.1186/s13104-019-4771-5>
- [18] TIMSS. (2015). Factors Influencing Changes in Learning Achievement: Iran's Performance in TIMSS and PIRLS (2003 – 2011): Workshop Report. Teheran: TIMSS Iran Country Office.
- [19] UNESCO. (2021). Global Education Monitoring Report 2021/2: Non-state actors in education: Who chooses? Who loses? Paris: UNESCO.
- [20] Zhang, K., Wu, S., Xu, Y., Cao, W., Goetz, T. & Parks-Stamm, E. J. (2021). Adaptability Promotes Student Engagement Under COVID-19: The Multiple Mediating Effects of Academic Emotion. *Frontiers in Psychology*, 11, 633265. doi: 10.3389/fpsyg.2020.633265